

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Allen et al.**

Serial No. **10/798,937**

Filed: **March 11, 2004**

For: **Systems and Methods for User-
Constructed Hierarchical Interest
Profiles and Information Retrieval
Using Same**

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Group Art Unit: **2168**

Examiner: **Pham, Hung Q.**

Commissioner for Patents
P.O. Box 1450
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35525
PATENT TRADEMARK OFFICE
CUSTOMER NUMBER

APPEAL BRIEF (37 C.F.R. 41.37)

This brief is in furtherance of the Reinstatement of Appeal, filed in this case on September 27, 2007.

No fees are believed to be required. If, however, any fees are required, I authorize the Commissioner to charge these fees which may be required to IBM Corporation Deposit Account No. 09-0447. No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to IBM Corporation Deposit Account No. 09-0447.

REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: International Business Machines Corporation of Armonk, New York.

RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: 1-23

B. STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims canceled: 5, 12 and 19
2. Claims withdrawn from consideration but not canceled: none
3. Claims pending: 1-4, 6-11, 13-18 and 20-23
4. Claims allowed: none
5. Claims rejected: 1-4, 6-11, 13-18 and 20-23
6. Claims objected to: none

C. CLAIMS ON APPEAL

The claims on appeal are: 1-4, 6-11, 13-18 and 20-23

STATUS OF AMENDMENTS

No amendment after final rejection was filed for this case.

SUMMARY OF CLAIMED SUBJECT MATTER

A. CLAIM 1 - INDEPENDENT

Claim 1 is directed to a method of delivering a webpage. A hierarchical data set of interests (Figure 2, element 200) identified by a user is received, and is stored in a database entry associated with the user (Specification page 9, line 11- page 10, line 2; Figure 4, block 402). This hierarchical data set is parsed to extract one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value (Specification page 10, lines 3-6 and page 10, line 23 – page 11, line 4; Figure 4, blocks 406 and 408). The extracted keyword values are applied to filter content for delivery to the user (Specification page 10, lines 6-8; Figure 4, block 408). A webpage that is personalized for the user is delivered according to the identified interests (Specification page 10, line 9 – page 11, line 14; Figure 5, all blocks).

B. CLAIM 8 - INDEPENDENT

Claim 8 is directed to a computer program product embodied in a machine-readable medium for delivering a webpage. The computer program produce comprises programming instructions for receiving a hierarchical data set of interests (Figure 2, element 200) identified by a user, and storing the hierarchical data set of interests in a database entry associated with the user (Specification page 9, line 11- page 10, line 2; Figure 4, block 402). Also included are instructions for parsing the hierarchical data set, and extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value (Specification page 10, lines 3-6 and page 10, line 23 – page 11, line 4; Figure 4, blocks 406 and 408). Also included are instructions for applying extracted keyword values to filter content for delivery to a the user, and delivering a webpage that is personalized for the user according to the identified interests (Specification page 10, line 6 – page 11, line 14; Figure 4, block 408; Figure 5, all blocks).

C. CLAIM 15 - INDEPENDENT

Claim 15 is directed to a data processing system for delivering a webpage. The data processing system includes circuitry operable for receiving a hierarchical data set of interests (Figure 2, element 200) identified by a user and for storing the hierarchical data set of interests in a database entry associated with the user (Specification page 9, line 11- page 10, line 2; Figure 4, block 402; Figure 6, element 600). The data processing system also includes circuitry operable for parsing the hierarchical data set, and for extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-s elected granularity value (Specification page 10, lines 3-6 and page 10, line 23 – page 11, line 4; Figure 4, blocks 406 and 408; Figure 6, element 600). The data processing system also includes circuitry operable for applying extracted keyword values to filter content for delivery to the user and for delivering a webpage that is personalized for the user according to the identified interests (Specification page 10, line 6 – page 11, line 14; Figure 4, block 408; Figure 5, all blocks; Figure 6, element 600).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to review on appeal are as follows:

1. Whether Claims 1, 8 and 15 are indefinite under 35 U.S.C. § 112, 2nd paragraph; and
2. Whether Claims 1-4, 6-11, 13-18 and 20-23 are anticipated by Kerschberg et al. (US Patent No. 7,117,207 B1) under 35 U.S.C. § 102(e).

ARGUMENT

A. GROUND OF REJECTION 1 (Claims 1, 8 and 15)

Claims 1, 8 and 15 stand rejected under 35 U.S.C. § 112, 2nd paragraph as being indefinite.

A.1. Claims 1, 8 and 15

In rejecting Claims 1, 8 and 15, the Examiner states that with respect to the clause ‘the identified interests’, it is unclear what item is being referenced. Appellants urge that to the contrary, it is clear what ‘the identified interests’ is referencing. For example, Claim 1 states:

1. A method of delivering a webpage comprising:
receiving a hierarchical data set of **interests identified by a user**;
storing the hierarchical data set of interests in a database entry associated with the user; and
parsing the hierarchical data set;
extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value;
applying extracted keyword values to filter content for delivery to the user;
and
delivering a webpage that is personalized for the user according to **the identified interests**.

As can be seen, per the features of Claim 1 the only thing that gets ‘identified’ are the *interests* that are received. Thus, the term ‘the identified interests’ clearly refers to the interests recited in line 2 of Claim 1 that are identified, as that is the only thing ‘identified’ per Claim 1.

Thus, it is urged that Claims 1, 8 and 15 have been erroneously rejected under 35 U.S.C. § 112, 2nd paragraph as being indefinite.

B. GROUND OF REJECTION 1 (Claims 1-4, 6-11, 13-18 and 20-23)

Claims 1-4, 6-11, 13-18 and 20-23 stand rejected under 35 U.S.C. § 102 (e) as being anticipated by Kerschberg et al. (US Patent No. 7,117,207 B1) (hereinafter “*Kerschberg*”).

For a prior art reference to anticipate in terms of 35 U.S.C. 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

B.1. Claims 1-3, 6, 8-10, 13, 15-17 and 20

As an initial matter, it should be noted that this is a premature final rejection as it is a new ground of rejection made by the Examiner which was not necessitated by Appellants amendment, but instead was made (according to the Examiner on page 2 of the final Office Action dated August 9, 2007) “**In view of the Appeal Brief** filed on 04/19/2007, PROSECUTION IS HEREBY REOPENED. **New grounds of rejection** are set forth below” (bold emphasis added by Appellants). Accordingly, as a premature final rejection was made in the case, Appellants were not afforded an opportunity to respond in a meaningful way to this new ground of rejection, as amendments after final rejection are routinely and systematically not entered by Examiners. The clear intent of MPEP 706.07 – where it states “Before final rejection is in order a clear issue should be developed between the examiner and applicant” – is being violated by this final rejection being made prior to Appellants being afforded an opportunity to develop a clear issue for the appeal of Claim 1. Both the Examiner and the Supervisory Examiner refused to comply with the requirements of MPEP 706.07¹ when such provisions were brought to their attention by Appellants’ attorney. Accordingly, Appellants are not challenging at the present time the appropriateness of this final rejection of Claim 1.

¹ MPEP 706.07 goes on to state:

“Switching from ... one set of references to another by the examiner in rejecting in successive actions claims of substantially the same subject matter, will alike tend to defeat attaining the goal of reaching a clearly defined issue for an early termination, i.e., either an allowance of the application or a final rejection” and “present practice does not sanction hasty and ill-considered final rejections. The applicant who is seeking to define his or her invention in claims that will give him or her the patent protection to which he or she is justly entitled should receive the cooperation of the examiner to that end, and not be prematurely cut off in the prosecution of his or her application.”

B.2. Claims 4, 11 and 18

Claim 4 in combination with Claims 1 and 3 provides a technique for delivering web content to a user, where a user profile of user interests is applied by a search engine or web portal to filter a request for content. The user profile of user interests is arranged in a hierarchical fashion to provide a resulting advantage that each level of the tree supported by the hierarchy represents a user specific grouping of interests at increasingly levels of granularity. One of more keyword attribute values are extracted from this hierarchical data set, and a Web content search form page is pre-populated using these extracted keyword values and returned to the user. Thus, the features of Claims 1, 3 and 4 advantageously provide an ability for a user to further refine their intended search using this Web content search form page that has been pre-populated using keyword values that were extracted from the hierarchical data set of interests identified by such user. This further search refinement can be seen when analyzing Claims 3 and 4, which are reproduced herewith for convenience:

3. The method of claim 1 further comprising:
pre-populating a Web content search form page using extracted keyword values; and
returning the Web content search form page to the user.
4. The method of claim 3 further comprising receiving the Web content search form *from the user*, wherein the received search form includes one or more pre-populated data, zero or more additional user-supplied search terms and at least one Boolean search indicator for determining the combination of search terms for performing a search.

As can be seen, a Web content search form – which is different from the claimed hierarchical data set of interests that is received and stored – is pre-populated using keyword values extracted from the hierarchical data set and returned to the user, thus allowing the user to further refine this search form that is then received from the user in order to advantageously be able to perform the actual search using initial screening/boolean combination of keyword values extracted from the hierarchical data set. In rejecting Claim 3, the Examiner states the claimed Web content search form is taught by *Kerschberg* at Figure 13, which is a search query results screen shot (*Kerschberg* col. 6, lines 32-35). In rejecting Claim 4, which is also directed to particular aspect of

this same claimed Web content search form (which is alleged by the Examiner to be taught by *Kerschberg's* Figure 13 search results screen), the Examiner states that all features of Claim 4 are taught by *Kerschberg* at col. 2, lines 36-39). Appellants show that there, *Kerschberg* states:

transforms the semantic taxonomy tree to at least one Boolean search query; submits at least one of the at least one Boolean search query to at least one searcher; receives at least one search result from the at least one searcher;

Appellants urge that this passage does not describe any properties or other associations with respect to *Kerschberg's* search results screen depicted in Figure 13, which is alleged to be equivalent to the claimed Web content search form that is sent to, and received from, a user. Instead, the *Kerschberg's* semantic taxonomy tree is what is being equated by the Examiner to be *the claimed hierarchical data set* – which is a different claimed element. This can be seen by page 4 of the final Office Action dated August 9, 2007, where the Examiner states:

“Regarding Claim 1 ... receiving a hierarchical data set of interests identified by a user (FIG. 10, Col. 6, Lines 45-57, a **WSTT tree model as a hierarchical data set of interests** for buying office furniture is identified by a user” (emphasis added by Appellants)

Thus, the Examiner is equating the claimed hierarchical data set with *Kerschberg's* WSTT tree model. This WSTT tree model is the identical tree that is described by the cited *Kerschberg* passage at col. 2 as teaching the features of Claim 4. Thus, according to this interpretation, *Kerschberg* teaches boolean operations associated with the *hierarchical data set*, and not with respect to the *Web content search form*. These two claimed elements are substantially different from one another, and properties associated with one (*Kerschberg's* boolean transform of a tree model, alleged to be equivalent to the claimed hierarchical data set) are not somehow transformed to the other (*Kerschberg's* search results screen, alleged to be equivalent to the claimed Web content search form). It is thus urged that, and assuming arguendo that the *Kerschberg's* search results screen of Figure 13 is equivalent to the claimed Web content search form (which it is, according to the Examiner), that the reference does not teach that such Figure 13 search results screen includes “one or more pre-populated data, zero or more additional user-supplied search

terms and *at least one Boolean search indicator for determining the combination of search terms for performing a search*”, as required by Claim 4. Notably, for the *Kerschberg*’s search results screen of Figure 13, the search has *already been performed* (*Kerschberg* col. 16, lines 32-35). Thus, as every element recited in Claim 4 is not identically shown in a single reference, it is shown that Claim 4 (and Claims 11 and 18) has been erroneously rejected under 35 U.S.C. § 102 (e) as being anticipated by *Kerschberg*.

B.3. Claims 7 and 14

Claim 7 recites a feature of “wherein the pre-selected granularity value corresponds to a root-to-leaf level in the hierarchical data set of identified interests”. As can be seen, the pre-selected granularity level corresponds to a *root-to-leaf level*. In rejecting this aspect of Claim 7, the Examiner states such granularity level is described by *Kerschberg* at col. 8, lines 68-64. Appellants show that *Kerschberg* states at col. 8, lines 64-68:

Finally, obtain the resulting page hits from the search engines by posing each query to them. Each resulting page hit from the target search engines for the generated query statements is generally evaluated for each search evaluation component.

As can be seen, this passage does not describe any type of pre-selected granularity level, such as the claimed pre-selected granularity level that corresponds to a root-to-leaf level. Instead, this passage describes obtaining and evaluating a resulting page from a search engine query. While *Kerschberg* describes an importance level at col. 7, lines 1-2, this importance level is not with respect to a *root-to-leaf level*, but instead is associated with a given term/item such as a chair (col. 7, lines 12-15). The ability to provide granularity levels for an entire level, as opposed to a single item as taught by the cited reference, further facilitates user usability as an entire level can correspond to a pre-selected granularity value. Thus, it is urged that Claim 7 (and Claim 14) have been erroneously rejected under 35 U.S.C. § 102 (e) as being anticipated by *Kerschberg*, as there are missing claimed features that are not identically shown in a single reference.

Accordingly, Appellants request that the Board reverse the final rejection of all pending claims.

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CLAIMS APPENDIX

The text of the claims involved in the appeal are:

1. A method of delivering a webpage comprising:
receiving a hierarchical data set of interests identified by a user;
storing the hierarchical data set of interests in a database entry associated with the user;
and
parsing the hierarchical data set;
extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value;
applying extracted keyword values to filter content for delivery to the user; and
delivering a webpage that is personalized for the user according to the identified interests.
2. The method of claim 1 wherein the hierarchical data set comprises an XML document.
3. The method of claim 1 further comprising:
pre-populating a Web content search form page using extracted keyword values; and
returning the Web content search form page to the user.
4. The method of claim 3 further comprising receiving the Web content search form from the user, wherein the received search form includes one or more pre-populated data, zero or more additional user-supplied search terms and at least one Boolean search indicator for determining the combination of search terms for performing a search.

6. The method of claim 1 wherein, if no keyword attribute is associated with an interest, using a value attribute of the interest as a default keyword.
7. The method of claim 1 wherein the pre-selected granularity value corresponds to a root-to-leaf level in the hierarchical data set of identified interests.
8. A computer program product embodied in a machine-readable medium for delivering a webpage, the computer program produce comprising programming instructions for:
 - receiving a hierarchical data set of interests identified by a user;
 - storing the hierarchical data set of interests in a database entry associated with the user;
 - parsing the hierarchical data set;
 - extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value;
 - applying extracted keyword values to filter content for delivery to a the user; and
 - delivering a webpage that is personalized for the user according to the identified interests.
9. The computer program product of claim 8 wherein the hierarchical data set comprises an XML document.
10. The computer program product of claim 8 further comprising programming instructions for:
 - pre-populating a Web content search form page using extracted keyword values; and
 - returning the Web content search form page to the user..

11. The computer program product of claim 10 further comprising programming instructions for receiving the Web content search form from the user, wherein the received search form includes one or more pre-populated data, zero or more additional user-supplied search terms and at least one Boolean search indicator for determining the combination of search terms for performing a search.

13. The computer program product of claim 8 wherein, if no keyword attribute is associated with an interest, using a value attribute of the interest as a default keyword.

14. The computer program product of claim 8 wherein the granularity value corresponds to a root-to-leaf level in the hierarchical data set of identified interests.

15. A data processing system for delivering a webpage comprising:
circuitry operable for receiving a hierarchical data set of interests identified by a user;
circuitry operable for storing the hierarchical data set of interests in a database entry associated with the user;

circuitry operable for parsing the hierarchical data set;

circuitry operable for extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-s elected granularity value;

circuitry operable for applying extracted keyword values to filter content for delivery to the user; and

circuitry operable for delivering a webpage that is personalized for the user according to the identified interests.

16. The data processing system of claim 15 wherein the hierarchical data set comprises an XML document.
17. The data processing system of claim 15 further comprising:
circuitry operable for pre-populating a Web content search form page using extracted keyword values; and
circuitry operable for returning the Web content search form page to the user.
18. The data processing system of claim 18 further comprising circuitry operable for receiving the Web content search form from the user, wherein the received search form includes one or more pre-populated data, zero or more additional user-supplied search terms and at least one Boolean search indicator for determining the combination of search terms for performing a search.
20. The data processing system of claim 15 wherein, if no keyword attribute is associated with an interest, using a value attribute of the interest as a default keyword.
21. The method of claim 1, wherein the webpage is a portal page associated with the user and provided by a portal.
22. The computer program product of claim 8 wherein the webpage is a portal page associated with the user and provided by a portal.
23. The data processing system of claim 15, wherein the webpage is a portal page associated with the user and provided by a portal.

EVIDENCE APPENDIX

There is no evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.